

Entry deterrence game

- Ⓐ If both players move at the same time.

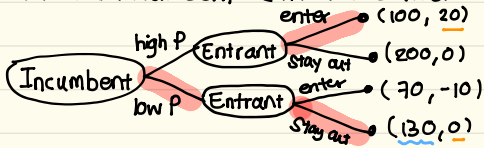
Entrant

	enter	stay out
Incumbent high P	100, 20	200, 10
low P	70, -10	130, 0

payoff (incumbent, entrant)

- ★ If incumbent gets to move first, they would be able to commit to their preferred choice (low P). So, the incumbent can make the entrants stay out of the market. and get the payoff of 130!

- Ⓑ If the incumbent can move first



first-mover advantage!

Game Theory : Summary

Timing

Static

		player 2	
player 1	coop	coop	defect
	defect	3, 3	0, 4
		4, 0	1, 1

- can use the **Nash Equilibrium** concept to find the equilibrium.

- very unlikely for players to cooperate.

- Cournot or Bertrand game that is played only once and all firms make decision at the same time.

dynamic

sequential



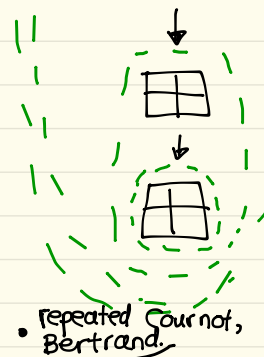
use SPNE to find the equilibrium.

- There are many subgames. SPNE doesn't allow for non-credible threat in any sub game.

repeated

		player 2	
player 1	coop	coop	defect
	defect	3, 3	0, 4
		4, 0	1, 1

		player 2	
player 1	coop	coop	defect
	defect	3, 3	0, 4
		4, 0	1, 1



solution to each subgame is a Nash solution.

Whenever we use the **backward induction** technique, we actually find the SPNE solution.

real-life examples

Static

- 1-time auction (antique)

Sequential

- Industries with market leaders, e.g. instant coffee, cement, eggs, parent stocks, etc.

repeated

- government auctions. mobile spectrum license auction. etc.